

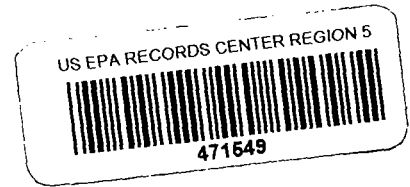
DRAFT

September 17, 1997

TO: Kim Sakowski, Project Manager
Superfund Section
Environmental Response Division

FROM: Margie Pritch, Geologist
Geological Services Section
Environmental Response Division

SUBJECT: Albion-Sheridan Landfill, Calhoun County
Final Design Reports



I reviewed the Woodward-Clyde Consultants (WCC) response to comments. They have done very little to address any of our previous comments. As a result, I do not approve this final design report.

I do recommend that MDEQ/EPA conduct additional work at the site if the liable party is unwilling. Additional boring and groundwater quality analysis is necessary. I recommend that groundwater quality checks be made in the following locations.

1. West side - Place a well between MW08 and MW09. The groundwater should be vertically sampled from the glacial aquifer down to the bedrock aquifer. If the sample results show higher concentrations at this location, this well should be included in the monitoring program. This necessity of this location is more apparent if you overlay the arsenic isoconcentration maps over the weathered bedrock groundwater contour map.

A well north of MW 08 is needed as a control point for groundwater flow and to be sure the plume does not take a northern flowpath. I have limited data from another site nearby and this appears to be a possibility.

2. South side - Place a well further east of MW16SB, north of MW10 SG. The groundwater should be vertically sampled from the glacial aquifer down to the bedrock aquifer. If the sample results show higher concentrations at this location, this well should be included in the monitoring program. In fact, the new well to be located 200 feet east of MW16SB could be moved about 450 feet further west.

There is over 800 feet between MW07 and MW05 with no data points. All groundwater flow direction contour maps show a change in groundwater flow direction on the landfill's southern side. If contour line 946.5 on the shallow bedrock map of 8/96 was drawn similar to the 946 contour line, the area 300-400 feet east of MW07 is an important downgradient location.

3. East side - There is approximately 1500 feet without a single monitoring point. Although this may be in an upgradient location, it is an important location to better define the groundwater flow direction. A data point between MW02 and MW 05 could very well change the contour lines as suggested in the above paragraph.

4. North side - The Amberton Village water supply should be included in the residential sampling program if it is not.

Surface Water - Perhaps we should collect surface water samples upgradient, near the intermittent streams (south of MW07) and downgradient of the site to confirm whether our concerns about surface water quality are legitimate.

The background well MW05SG has 6.4 ug/l bis (2 Ethyl hexyl) Phthalate. Is this an adequate background water well?

Vinyl Chloride was found in MW3 but the well is not included in the monitoring plan.

Let me know if you have any questions.

cc: W. Iversen
B.P. Shirey